

REMARKS

This communication is in response to the Office Action dated September 22, 2006. In that Office Action, the Examiner rejected all of the pending claims as being obvious in view of U.S. Patent No. 5,867,230 to Wang, et al. when combined with U.S. Patent No. 6,681,255 to Cooper et al.

The present invention relates to the transmission of packetized data from a transmitting device to a receiver. The media by which the packets are transmitted may be wireless, hardwired., coax, or any number of physical layer mechanisms. For the transmission media, a desired target bandwidth (B_T) is determined. The target bandwidth is determined, *inter alia*, by the capacity of the transmission media, the capabilities of the transmitter or receiver, or other factors such as the amount of bandwidth available to the transmitter. In short, the target bandwidth is a rate at which data is transmitted from the transmitter to the receiver over the transmission media. In order to ensure that the transmission of the data is not excessively "bursty" or excessively variable, the present invention **institutes a consistent time delay between the start of successive packets until the data has been completely transmitted**. As set forth in paragraphs 67-68, the separation in time between transmission of successive data packets is determined by the packet size divided by the target bandwidth.

In contrast, the Wang patent discloses the encoding of video data using a variable bit rate. Although the Examiner seems to assume otherwise, the variable bit rate is not the bit rate of transmission, but rather the target "encoding rate" at which the video stream is encoded. See column 5, lines 1-4. The target encoding rate as used in the Wang patent determines the quality of the encoded video to be transmitted. A higher encoding rate would imply a higher quality video transmission. Typically, the target encoding rate is determined by the type of transmission media used to carry the data. A low speed 28.8 kps channel would only support low target encoding rates. In contrast, a high speed transmission media may allow a higher encoding rate of the video.

It is important to distinguish between the encoding rate of the Wang patent and the target bit rate as used in the present invention. In the Wang patent, the encoding rate is the amount of data allowed to represent a single frame of video. It can be appreciated that various compression techniques can be used, with lower compression rates generally yielding higher encoding bit rates and higher quality images.

In contrast, the target bit rate of the present invention has little to do with the type of compression or encoding used to generate the data packets. Instead, the target bit rate is a function of the amount of data to be transmitted and the capability of the transmission media, the transmitter and the receiver. This is a subtle, but important distinction.

Further, while it is admitted that the Wang patent teaches that time stamps are applied to each of the packetized data, the time stamp is not used to closely regulate the timing between successive packets as is in the claimed invention. Indeed, as set forth in column 7, lines 31-32, packets "may be sent sooner than needed", implying that there is little rigidity in the timing of the transmission of the packets. Indeed, applicant has closely reviewed the Wang patent and finds no teaching whatsoever that successive packets are transmitted at a consistent time delay relative to the packets before and after it. Indeed, it appears that Wang would teach a variable time differential between successive packets.

The Examiner also asserts that the Cooper patent teaches that a wait time is calculated by dividing a packet size by the targeted bandwidth. To the contrary, Cooper relates to the regulation of requests by a spider engine. The Examiner refers to column 5, lines 42 for a formula that the Examiner believes teaches a limitation of the claimed invention. However, the formula described therein teaches that the wait time (T_{wait}) is calculated by the total number of bytes to be transmitted ($bytes_{agg}$) divided by the target bandwidth. This is completely different than the present invention which calculates the wait time between the transmission of successive by dividing the number of bits within each packet by the target bandwidth. The number of bits per packet is different than the aggregate number of bytes to be transmitted by a source as taught by Cooper. In other

words, the Cooper reference does not teach the packetization of data, but rather a continuous transmission of data. Moreover, **the wait time as used in Cooper is not the time between successive packets, but rather the delay time between data requests made of a particular website. See column 1, lines 47-60.**

Thus, as presently claimed, neither Wang nor Cooper teach the calculation of a wait time between transmission of successive data packets. Neither is the wait time calculated as set forth in the claims where the size of the packet is used to determine the wait time. In Cooper, the wait time, which is not the same as the wait time of the present invention, is calculated using the total number of bytes within the content to be distributed by the website.

In particular, the claims include the limitation of: "controlling the transmission of the packets so that there is a residual time (t) between the ending time of transmission of one packet and the starting time of transmission of the next packet to establish the wait time". **This means that the delay between successive packets is the same.** There is no teaching of this in Wang or Cooper.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0665, under Order No. 320528005US from which the undersigned is authorized to draw.

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Respectfully submitted,

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